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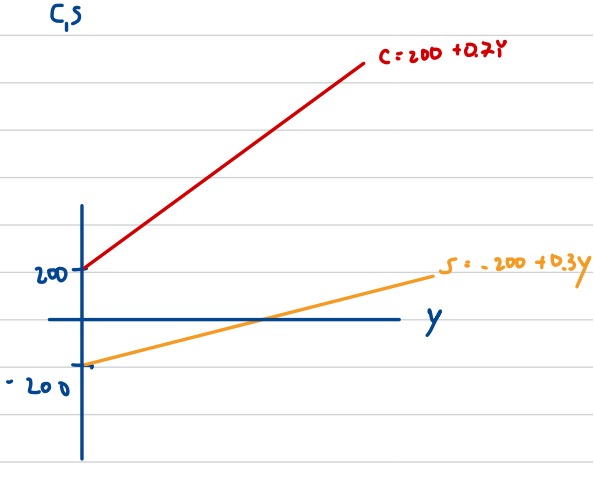
1. The Keynesian consumption function assumes that 0 < MPC < 1; what is the basis for such assumption?

Consumption function
$C = C_0 + C_1 Y$
relationship between consumption and income

2. Assume a CLOSED economy with NO government. Let the autonomous consumption be 200 and MPS be 0.3. Draw and write equations for both saving and consumption functions.

Consumption
$C = C_0 + C_1 Y$
$C = 200 + 0.7Y$

Saving
$Y = S + C$
$S = Y - C$
$S = Y - (200 + 0.7Y)$
$S = Y - 200 - 0.7Y$
$S = -200 + 0.3Y$

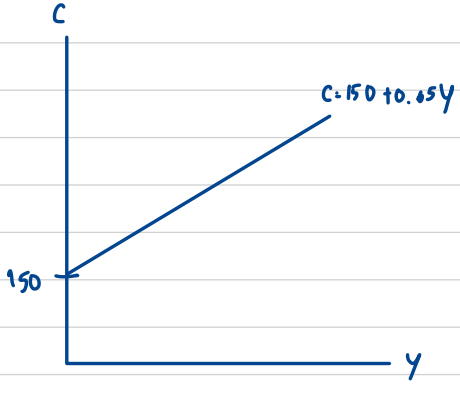


3. Let the saving function be S = -150 + 0.35Y. Find and draw the consumption function.

$S = Y - C$
$S = Y - (C_0 + C_1 Y)$
$S = -C_0 + Y(1 - C_1)$
$S = -150 + 0.35Y$

$-C_0 = -150$ $\quad 1 - C_1 = 0.35$
$C_0 = 150$ # $\quad C_1 = 0.65$ #

$C = C_0 + C_1 Y$
$C = 150 + 0.65Y$



4. How do the followings affect the AE graph (i.e. explain how the graph changes) and the equilibrium output?

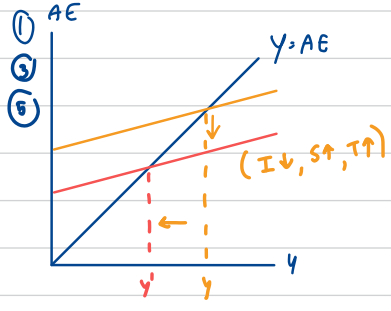
① - All firm managers decide to buy fewer machines. $I\downarrow \rightarrow AE\downarrow \rightarrow Y^*\downarrow$

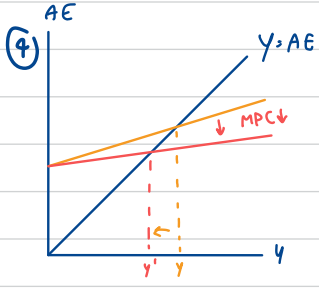
② - The government decides to build more roads. $G\uparrow \rightarrow AE\uparrow \rightarrow Y^*\uparrow$

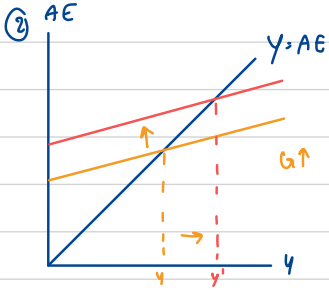
③ - The citizens decide to save more at all income levels. $S\uparrow \rightarrow AE\downarrow \rightarrow Y^*\downarrow$

④ - The citizens decide to save larger proportion of income. $MPS\uparrow \rightarrow MPC\downarrow \rightarrow Y^*\downarrow$

⑤ - The government decides to raise tax. $T\uparrow \rightarrow AE\downarrow \rightarrow Y^*\downarrow$

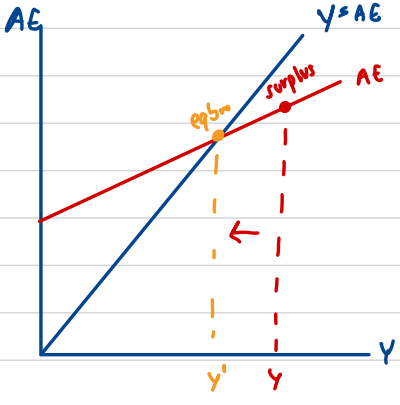






5. In the Keynesian Cross Model, suppose that aggregate output is greater than aggregate expenditure. Explain the adjustment process towards the equilibrium.

Y > AE (supply > demand)



because output is more than incom so the business need to cut back of production to make $y \rightarrow y'$

6. Let C = 60 + 0.6Y and I = 20. Find the equilibrium output <u>with the saving/investment approach</u>.

$Y = C + S$

$S = Y - C$

$S = Y - 60 + 0.6Y$

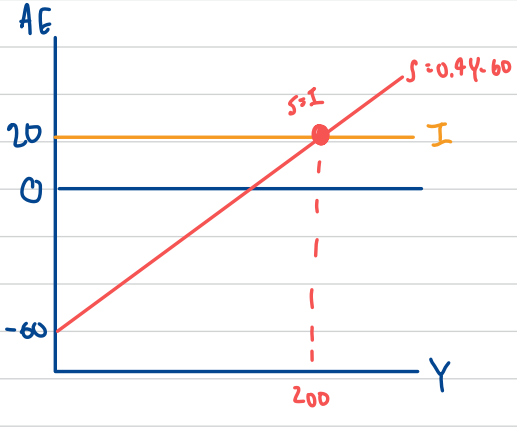
$S = 0.4Y - 60$

$S = I$

$0.4Y - 60 = 20$

$0.4Y = 80$

$Y^* = 200$



7. Let S = -60 + 0.4Y and I = 20. Find the equilibrium output with the standard approach. Now, suppose I increases by 20. Find the new equilibrium and the investment multiplier.

$S = I$

$0.4Y - 60 = 20$

$0.4Y = 80$

$Y^* = 200$ #

I increase by 20

$0.4Y - 60 = 40$

$0.4Y = 100$

$Y^* = 250$ #

investment multiplier $= \frac{\Delta Y^*}{\Delta I}$

$= \frac{50}{20}$

$= 2.5$ #

∴ when I increase 1, Y will increase by 2.5 units

if I increase 20, Y will increase by 50 units

8. With the multiplier effect, an injection of money (for example, investment) can lead to a greater proportional increase in output. Explain how this can happen.

when business have more money they can buy more machine, hire more labor so there are more money in flow of income and have increase in output.

9. How is the investment multiplier related to MPC? Explain the intuition behind such relationship. (Hint: Question 9)

$\frac{\Delta Y^*}{\Delta I} = \frac{\text{investment multiplier}}{1 - \text{Slope of AE}}$

$= \frac{1}{1 - MPC}$

- when MPC ↑ → investment multiplier ↑
- when household have larger proportion of consumption mean firm will have more money to do business, more money in circular flow and increase size of multiplier

10. What is the Paradox of Thrift? Explain it with diagram.

increasing in autonomous saving leads to decrease in aggregat expanditure and decrease aggregate output.